

**We Claim:**

1           1.     A playback/recording apparatus for performing transfer of contents  
2 recorded on an erasable storage medium, comprising:  
3           a playback means for reproducing contents recorded on a first storage  
4 medium, and outputting the contents;  
5           a detection means for detecting copyright information of the contents;  
6           an erasing means for erasing the contents from the first storage medium; and  
7           a recording means for recording the contents on a second storage medium;  
8           wherein, when performing transfer of the contents, the contents are  
9 reproduced by the playback means and outputted and, when the output of the  
10 detection means indicates that the contents are copy-inhibited, the contents are  
11 erased from the first storage medium by the erasing means and, simultaneously, the  
12 contents are recorded on the second storage medium by the recording means, thereby  
13 transferring the contents.

1           2.     A playback/recording apparatus for performing transfer of contents  
2 recorded on an erasable storage medium, comprising:  
3           a playback means for reproducing contents recorded on a first storage  
4 medium, and outputting the contents;  
5           a detection means for detecting copyright information of the contents;  
6           an erasing means for erasing the contents from the first storage medium;  
7           an encryption means for encrypting the output of the playback means, and  
8 outputting the encrypted data;  
9           a temporary storage means for temporarily storing the encrypted data;  
10          a decryption means for decrypting the encrypted data; and  
11          a recording means for recording the contents on a second storage medium;  
12          wherein, when performing transfer of the contents, the contents are  
13 reproduced by the playback means and outputted and, when the output of the  
14 detection means indicates that the contents are copy-inhibited, the contents are  
15 erased from the first storage medium by the erasing means and, simultaneously, the

contents are encrypted by the encryption means and temporarily stored in the temporary storage means and, after the erasing is ended, the encrypted data stored in the temporary storage means are read and outputted, and the encrypted data are decrypted by the decryption means and outputted and, further, the encrypted data stored in the temporary storage means are erased, and the decrypted contents are recorded on the second storage medium by the recording means, thereby transferring the contents.

3. A playback/recording apparatus for performing transfer of contents recorded on an erasable storage medium, between apparatuses:

said playback/recording apparatus comprising a playback/erasing apparatus as a first apparatus, a recording apparatus as a second apparatus, and a transmission line such as a transmission cable or the like for connecting the first and second apparatuses;

said first apparatus comprising:

a first authentication means for performing mutual authentication with the second apparatus, and transfer of contents including transfer information which indicates transfer of the contents, or the like, between itself and the second apparatus;

a playback means for reproducing contents recorded on a first storage medium, and outputting the reproduced contents;

a detection means for detecting copyright information of the contents;

an erasing means for erasing the contents from the first storage medium; and

an analog protection system (APS) for incorporating analog protection, the transfer information, and the like into the output of the playback means; and

said second apparatus comprising:

a second authentication means for performing mutual authentication with the first apparatus, and transfer of the contents including the transfer information, between itself and the first apparatus; and

a recording means for recording the contents on a second storage medium;

wherein, when performing transfer of the contents, mutual authentication is carried out between the first authentication means and the second authentication means, and the contents are reproduced by the playback means and outputted and, when the output of the detection means indicates that the contents are copy-inhibited, the analog protection, the transfer information, and the like are incorporated into the output of the playback means by the APS, and the contents are erased from the first storage medium by the erasing means and, simultaneously, the transfer information is detected by the second authentication means, and the contents are recorded on the second storage medium by the recording means on the basis of the transfer information, thereby transferring the contents.

4. A playback/recording apparatus defined in Claim 3, wherein:  
information such as the transfer information indicating transfer of the contents exists in a vertical blanking period of a video signal.

5. A playback/recording apparatus defined in Claim 3, wherein:  
the second storage medium is a video cassette tape; and  
an analog protection signal is superimposed and recorded on the contents.

6. A playback/recording apparatus for performing transfer of contents recorded on an erasable storage medium, between apparatuses:  
said playback/recording apparatus comprising a playback/erasing apparatus as a first apparatus, a recording apparatus as a second apparatus, and a transmission line such as a transmission cable or the like for connecting the first and second apparatuses;  
said first apparatus comprising:  
a first authentication means for performing mutual authentication and transfer of contents between itself and the second apparatus;  
a playback means for reproducing contents recorded on a first storage medium, and outputting the reproduced contents;

12 a detection means for detecting copyright information of the contents;  
13 an erasing means for erasing the contents from the first storage medium; and  
14 an encryption means for encrypting the output from the playback means, and  
15 outputting the encrypted data; and  
16 said second apparatus comprising:  
17 a second authentication means for performing mutual authentication and  
18 transfer of contents between itself and the first apparatus;  
19 a decryption means for decrypting the encrypted data; and  
20 a recording means for recording the contents on a second storage means;  
21 wherein, when performing transfer of the contents, mutual authentication is  
22 carried out between the first authentication means and the second authentication  
23 means, the contents are reproduced by the playback means and outputted and, when  
24 the output of the detection means indicates that the contents are copy-inhibited, data  
25 of the contents are encrypted by the encryption means and outputted, the contents  
26 are erased from the first storage medium by the erasing means, the encrypted data  
27 are decrypted by the decryption means and outputted, and the contents are recorded  
28 on the second storage means by the recording means, thereby transferring the  
29 contents.

1 7. A playback/recording apparatus for performing transfer of contents  
2 recorded on an erasable storage medium, between apparatuses:  
3 said playback/recording apparatus comprising a playback/erasing apparatus  
4 as a first apparatus, a recording apparatus as a second apparatus, and a transmission  
5 line such as a transmission cable or the like for connecting the first and second  
6 apparatuses;  
7 said first apparatus comprising:  
8 a first authentication means for performing mutual authentication with the  
9 second apparatus, and transfer of contents including transfer information which  
10 indicates transfer of the contents, or the like, between itself and the second  
11 apparatus;

12 a playback means for reproducing contents recorded on a first storage  
13 medium, and outputting the reproduced contents;  
14 a detection means for detecting copyright information of the contents;  
15 an erasing means for erasing the contents from the first storage medium;  
16 a compression means for compressing image data of the contents, and  
17 outputting the compressed data; and  
18 an encryption means for encrypting the output from the playback means, and  
19 outputting the encrypted data; and  
20 said second apparatus comprising:  
21 a second authentication means for performing mutual authentication with the  
22 first apparatus, and transfer of contents including transfer information which  
23 indicates transfer of the contents, or the like, between itself and the first apparatus;  
24 a decryption means for decrypting the encrypted data;  
25 a decompression means for decompressing the compressed data; and  
26 a recording means for recording the contents on a second storage means;  
27 wherein, when performing transfer of the contents, mutual authentication is  
28 carried out between the first authentication means and the second authentication  
29 means, the contents are reproduced by the playback means and outputted and, when  
30 the output of the detection means indicates that the contents are copy-inhibited,  
31 image data of the contents are compressed by the compression means and,  
32 simultaneously, additional information such as the copyright information, the  
33 transfer information and the like are inserted in an area which is secured by the  
34 compression, the data of the contents are encrypted by the encryption means and  
35 outputted, the contents are erased from the first storage medium by the erasing  
36 means and, when the additional information including the transfer information is  
37 detected by the second authentication means, the encrypted data are decrypted by the  
38 decryption means, the compressed data are decompressed by the decompression  
39 means to output the image data, and the contents are recorded on the second storage  
40 means by the recording means, thereby transferring the contents.

1           8.       The playback/recording apparatus defined in Claim 7, wherein:  
2           said compression means is a means for compressing data by reducing a total  
3           number T of unused generated values which are smaller than a generated value G;  
4           the generated value G is a value which is generated by arranging plural data  
5           values so as to have digits, among data where the total number of values to be used  
6           as data values within the contents is less than the total number of values expressed  
7           by a number of bits per data value, i.e., among data having values not to be used as  
8           data values;  
9           the unused generated values are values which include the unused data values  
10          and are generated by arranging plural data values so as to have digits; and  
11          the plural data values are made to have the same number of digits by adding  
12          0 until reaching a number of digits of a maximum data value.

1           9.       The playback/recording apparatus defined in Claim 7, wherein:  
2           said decompression means is a means for decompressing the compressed  
3           data by calculating the total number T of unused generated values which are smaller  
4           than a generated value G, and adding it to the generated value G;  
5           the generated value G is a value which is generated by arranging plural data  
6           values so as to have digits, among data where the total number of data values to be  
7           used as data values within the contents is less than the total number of values  
8           expressed by a number of bits per data value, i.e., among data having values not to  
9           be used as data values;  
10          the unused generated values are values which include the unused data values  
11          and are generated by arranging plural data values so as to have digits; and  
12          the plural data values are made to have the same number of digits by adding  
13          0 until reaching a number of digits of a maximum data value.

1           10.      A playback/erasing apparatus as a first apparatus, which is one of  
2           components of a playback/recording apparatus for performing transfer of contents  
3           recorded on an erasable storage medium, between the first apparatus and a second

4 apparatus, comprising:

5 a first authentication means for performing mutual authentication and  
6 transfer of contents between itself and the second apparatus;

7 a playback means for reproducing contents recorded on a first storage  
8 medium, and outputting the reproduced contents;

9 a detection means for detecting copyright information of the contents; and

10 an erasing means for erasing the contents from the first storage medium;

11 wherein, when performing transfer of the contents, mutual authentication is  
12 carried out between the first authentication means and the second apparatus, and the  
13 contents are reproduced by the playback means and outputted and, when the output  
14 of the detection means indicates that the contents are copy-inhibited, the contents are  
15 erased from the first storage medium by the erasing means.

1 11. A playback/erasing apparatus as a first apparatus, which is one of  
2 components of a playback/recording apparatus for performing transfer of contents  
3 recorded on an erasable storage medium, between the first apparatus and a second  
4 apparatus, comprising:

5 a first authentication means for performing mutual authentication with the  
6 second apparatus, and transfer of contents including transfer information which  
7 indicates transfer of the contents, or the like, between itself and the second  
8 apparatus;

9 a playback means for reproducing contents recorded on a first storage  
10 medium, and outputting the reproduced contents;

11 a detection means for detecting copyright information of the contents;

12 an erasing means for erasing the contents from the first storage medium; and

13 an analog protection system (APS) for incorporating analog protection and  
14 the transfer information or the like into the output of the playback means;

15 wherein, when performing transfer of the contents, mutual authentication is  
16 carried out between the first authentication means and the second apparatus, and the  
17 contents are reproduced by the playback means and outputted and, when the output

18 of the detection means indicates that the contents are copy-inhibited, the analog  
19 protection and the transfer information or the like are incorporated into the output of  
20 the playback means by the APS, and the contents are erased from the first storage  
21 medium by the erasing means.

1 12. The playback/erasing apparatus as the first apparatus defined in  
2 Claim 11, wherein the information such as transfer information indicating transfer of  
3 the contents exists in a vertical blanking period of a video signal.

1 13. A playback/erasing apparatus as a first apparatus, which is one of  
2 components of a playback/recording apparatus for performing transfer of contents  
3 recorded on an erasable storage medium, between the first apparatus and a second  
4 apparatus, comprising:

5 a first authentication means for performing mutual authentication and  
6 transfer of contents between itself and the second apparatus;

7 a playback means for reproducing contents recorded on a first storage  
8 medium, and outputting the reproduced contents;

9 a detection means for detecting copyright information of the contents;

10 an erasing means for erasing the contents from the first storage medium; and

11 an encryption means for encrypting the output of the playback means, and  
12 outputting the encrypted data;

13 wherein, when performing transfer of the contents, mutual authentication is  
14 carried out between the first authentication means and the second apparatus, and the  
15 contents are reproduced by the playback means and outputted and, when the output  
16 of the detection means indicates that the contents are copy-inhibited, the data of the  
17 contents are encrypted by the encryption means and outputted, and the contents are  
18 erased from the first storage medium by the erasing means.

1 14. A playback/erasing apparatus as a first apparatus, which is one of  
2 components of a playback/recording apparatus for performing transfer of contents



recorded on an erasable storage medium, between the first apparatus and a second apparatus, comprising:

a first authentication means for performing mutual authentication with the second apparatus, and transfer of contents including transfer information which indicates transfer of the contents, or the like, between itself and the second apparatus;

a playback means for reproducing contents recorded on a first storage medium, and outputting the reproduced contents;

a detection means for detecting copyright information of the contents;

an erasing means for erasing the contents from the first storage medium;

a compression means for compressing image data of the contents, and outputting the compressed data; and

an encryption means for encrypting the output of the playback means, and outputting the encrypted data;

wherein, when performing transfer of the contents, mutual authentication is carried out between the first authentication means and the second apparatus, and the contents are reproduced by the playback means and outputted and, when the output of the detection means indicates that the contents are copy-inhibited, the image data of the contents are compressed by the compression means and additional information such as the copyright information, the transfer information and the like are inserted in an area which is secured by the compression, the data of the contents are encrypted by the encryption means and outputted, and the contents are erased from the first storage medium by the erasing means.

15. The playback/erasing apparatus as the first apparatus defined in Claim 14, wherein:

said compression means is a means for compressing data by reducing a total number T of unused generated values which are smaller than a generated value G;

the generated value G is a value which is generated by arranging plural data values so as to have digits, among data where the total number of data values to be

7 used as data values within the contents is less than the total number of values  
8 expressed by a number of bits per data value, i.e., among data having values not to  
9 be used as data values;  
10 the unused generated values are values which include the unused data values  
11 and are generated by arranging plural data values so as to have digits; and  
12 the plural data values are made to have the same number of digits by adding  
13 0 until reaching a number of digits of a maximum data value.

1 16. A recording apparatus as a second apparatus, which is one of  
2 components of a playback/recording apparatus for performing transfer of contents  
3 recorded on an erasable storage medium between a first apparatus and the second  
4 apparatus, comprising:  
5 a second authentication means for performing mutual authentication with the  
6 first apparatus, and transfer of contents including transfer information which  
7 indicates transfer of the contents, or the like, between itself and the first apparatus;  
8 and  
9 a recording means for recording the contents on a second storage medium;  
10 wherein, when performing transfer of the contents, mutual authentication is  
11 carried out between the second authentication means and the first apparatus, the  
12 transfer information is detected by the second authentication means, and the contents  
13 are recorded on the second storage means by the recording means on the basis of the  
14 transfer information.

1 17. The recording apparatus as the second apparatus defined in Claim 16,  
2 wherein the second storage medium is a video cassette tape, and an analog  
3 protection signal is superimposed and recorded on the contents.

1 18. A recording apparatus as a second apparatus, which is one of  
2 components of a playback/recording apparatus for performing transfer of contents  
3 recorded on an erasable storage medium between a first apparatus and the second

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4 apparatus, comprising:

5 a second authentication means for performing mutual authentication and  
6 transfer of contents between itself and the first apparatus;

7 a decryption means for decrypting encrypted data; and

8 a recording means for recording the contents on a second storage medium;

9 wherein, when performing transfer of the contents, mutual authentication is  
10 carried out between the second authentication means and the first apparatus,  
11 encrypted data are decrypted by the decryption means and outputted, and the  
12 contents are recorded on the second storage means by the recording means.

1 19. A recording apparatus as a second apparatus, which is one of  
2 components of a playback/recording apparatus for performing transfer of contents  
3 recorded on an erasable storage medium between a first apparatus and the second  
4 apparatus, comprising:

5 a second authentication means for performing mutual authentication with the  
6 first apparatus, and transfer of contents including transfer information which  
7 indicates transfer of the contents, or the like, between itself and the first apparatus;

8 a decompression means for decompressing compressed data; and

9 a recording means for recording the contents on a second storage medium;

10 wherein, when performing transfer of the contents, mutual authentication is  
11 carried out between the second authentication means and the first apparatus and,  
12 when additional information including the transfer information and the like is  
13 detected by the second authentication means, encrypted data are decrypted by the  
14 decryption means and outputted, compressed data are decompressed by the  
15 decompression means to output the contents, and the contents are recorded on the  
16 second storage means by the recording means.

1 20. The recording apparatus as the second apparatus defined in Claim 19,  
2 wherein:

3 said decompression means is a means for decompressing the compressed

4 data by calculating the total number T of unused generated values which are smaller  
5 than a generated value G, and adding it to the generated value G;  
6 the generated value G is a value which is generated by arranging plural data  
7 values so as to have digits, among data where the total number of data values to be  
8 used as data values within the contents is less than the total number of values  
9 expressed by a number of bits per data value, i.e., among data having values not to  
10 be used as data values;  
11 the unused generated values are values which include the unused data values  
12 and are generated by arranging plural data values so as to have digits; and  
13 the plural data values are made to have the same number of digits by adding  
14 0 until reaching a number of digits of a maximum data value.

1 21. The playback/recording apparatus defined in Claim 6 or 7 further  
2 comprising a temporary storage means for temporarily storing the contents;  
3 wherein the contents are temporarily stored in the temporary storage means.

1 22. The playback/erasing apparatus as the first apparatus defined in  
2 Claim 13 or 14 further comprising a temporary storage means for temporarily  
3 storing the contents;  
4 wherein the contents are temporarily stored in the temporary storage means.

1 23. The recording apparatus as the second apparatus defined in Claim 18  
2 or 19 further comprising a temporary storage means for temporarily storing the  
3 contents;  
4 wherein the contents are temporarily stored in the temporary storage means.

1 24. The playback/recording apparatus defined in Claim 1 or 2 further  
2 comprising:  
3 a second playback means for reproducing the contents recorded on the  
4 second storage medium; and

5           a control means for controlling the playback means or the erasing means, the  
6   second playback means, and the recording means;  
7           wherein the playback means or the erasing means, the second playback  
8   means, and the recording means are controlled by the control means on the basis of  
9   transfer information including information of collation between a recording signal to  
10   the second storage medium and a reproduced signal from the second storage  
11   medium, or the like, thereby performing transfer of the contents.

1           25.    The playback/recording apparatus defined in any of Claims 3, 6, and  
2   7, further comprising:  
3           a second playback means for reproducing the contents recorded on the  
4   second storage medium;  
5           a first control means for controlling the playback means and the erasing  
6   means; and  
7           a second control means for controlling the second playback means and the  
8   recording means;  
9           wherein the playback means or the erasing means, the second playback  
10   means, and the recording means are controlled by the first control means or the  
11   second control means, on the basis of transfer information including information of  
12   collation between a recording signal to the second storage medium and a reproduced  
13   signal from the second storage medium, or the like, thereby performing transfer of  
14   the contents.

1           26.    The playback/erasing apparatus as the first apparatus defined in any  
2   of Claims 10, 11, 13, and 14, further comprising a first control means for controlling  
3   the playback means and the erasing means;  
4           wherein the playback means and the erasing means are controlled by the first  
5   control means, thereby performing transfer of the contents.

1           27.    The recording apparatus as the second apparatus defined in any of

2 Claims 16, 18, and 19, further comprising:

3 a second playback means for reproducing the contents recorded on the  
4 second storage means; and

5 a second control means for controlling the second playback means and the  
6 recording means;

7 wherein the second playback means and the recording means are controlled  
8 by the second control means on the basis of transfer information including  
9 information of collation between a recording signal to the second storage medium  
10 and a reproduced signal from the second storage medium, or the like, thereby  
11 performing transfer of the contents.

1 28. The playback/recording apparatus defined in any of Claims 3, 6, and  
2 7, wherein mutual authentication by the first authentication means or the second  
3 authentication means is also carried out during transfer of the contents, and the  
4 transfer of the contents is continued when mutual authentication is established.

1 29. The playback/erasing apparatus as the first apparatus defined in any  
2 of Claims 10, 11, 13, and 14, wherein mutual authentication by the first  
3 authentication means is also carried out during transfer of the contents, and the  
4 transfer of the contents is continued when mutual authentication is established.

1 30. The recording apparatus as the second apparatus defined in any of  
2 Claims 16, 18, and 19, wherein mutual authentication by the second authentication  
3 means is also carried out during transfer of the contents, and the transfer of the  
4 contents is continued when mutual authentication is established.

1 31. The playback/recording apparatus defined in Claim 25, wherein the  
2 contents are divided into plural sections, and transfer of the contents is carried out in  
3 units of sections.

1           32.    The playback/erasing apparatus as the first apparatus defined in  
2   Claim 26, wherein the contents are divided into plural sections, and transfer of the  
3   contents is carried out in units of sections.

1           33.    The recording apparatus as the second apparatus defined in Claim 27,  
2   wherein the contents are divided into plural sections, and transfer of the contents is  
3   carried out in units of sections.

1           34.    The playback/recording apparatus defined in Claim 31 wherein, when  
2   performing transfer of the contents, the recording position of the contents on the  
3   second storage medium matches the erasing position of the contents on the first  
4   storage medium.

1           35.    The playback/erasing apparatus as the first apparatus defined in  
2   Claim 32 wherein, when performing transfer of the contents, the erasing position of  
3   the contents on the first storage medium matches the recording position of the  
4   contents on the second storage medium of the external apparatus.

1           36.    The recording apparatus as the second apparatus defined in Claim 33  
2   wherein, when performing transfer of the contents, the recording position of the  
3   contents on the second storage medium matches the erasing position of the contents  
4   on the first storage medium of the external apparatus.

1           37.    The playback/recording apparatus defined in Claim 24 further  
2   comprising a nonvolatile memory for recording and holding information relating to  
3   contents transfer, such as the transfer information or the copyright information, when  
4   transfer of the contents is carried out;  
5        wherein the transfer process is continued when the transfer information exists  
6   in the nonvolatile memory, and the information is erased when the transfer is ended,  
7   whereby, even when the contents transfer process is interrupted due to power off of

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8 the playback/recording apparatus or the like, the transfer process can be resumed by  
9 reading the transfer information from the memory.

1 38. The playback/recording apparatus defined in Claim 25 further  
2 comprising a nonvolatile memory for recording and holding information relating to  
3 contents transfer, such as the transfer information or the copyright information, the  
4 information indicating division of the contents, and the like, when transfer of the  
5 contents is carried out;  
6 wherein the transfer process is continued when the transfer information exists  
7 in the nonvolatile memory, and the information is erased when the transfer is ended,  
8 whereby, even when the contents transfer process is interrupted due to power off of  
9 the playback/recording apparatus or the like, the transfer process can be resumed by  
10 reading the transfer information from the memory.

1 39. The playback/erasing apparatus as the first apparatus defined in  
2 Claim 26 further comprising a nonvolatile memory for recording and holding  
3 information relating to contents transfer, such as the transfer information or the  
4 copyright information, the information indicating division of the contents, and the  
5 like, when transfer of the contents is carried out;  
6 wherein the transfer process is continued when the transfer information exists  
7 in the nonvolatile memory, and the information is erased when the transfer is ended,  
8 whereby, even when the contents transfer process is interrupted due to power off of  
9 the playback/recording apparatus or the like, the transfer process can be resumed by  
10 reading the transfer information from the memory.

1 40. The playback/recording apparatus defined in Claim 1 or 2 further  
2 comprising a transfer instruction means for sending an instruction for transferring  
3 the contents, to the playback/ recording apparatus;  
4 wherein transfer of the contents is carried out according to the instruction of  
5 the transfer instruction means.



1           41.     The playback/recording apparatus defined in any of Claims 3, 6, and  
2     7 further comprising a transfer instruction means for sending an instruction for  
3     transferring the contents, to the first apparatus;  
4           wherein transfer of the contents is carried out according to the instruction of  
5     the transfer instruction means.

1           42.     The playback/erasing apparatus as the first apparatus defined in any  
2     of Claims 10, 11, 13, and 14, further comprising a transfer instruction means for  
3     sending an instruction for transferring the contents, to the first apparatus;  
4           wherein transfer of the contents is carried out according to the instruction of  
5     the transfer instruction means.

1           43.     The playback/recording apparatus defined in Claim 1 or 2 further  
2     comprising a transfer display means for displaying whether the contents are being  
3     transferred or not;  
4           wherein, when the contents are being transferred, it is displayed by the  
5     transfer display means for the outside of the apparatus.

1           44.     The playback/recording apparatus defined in any of Claims 3, 6, and  
2     7, wherein:  
3           the first apparatus is provided with a transfer display means for displaying  
4     whether the contents are being transferred or not; and  
5           when the contents are being transferred, it is displayed by the transfer display  
6     means for the outside of the apparatus.

1           45.     The playback/erasing apparatus as the first apparatus defined in any  
2     of Claims 10, 11, 13, and 14, further comprising a transfer display means for  
3     displaying whether the contents are being transferred or not;

4            wherein, when the contents are being transferred, it is displayed by the  
5            transfer display means for the outside of the apparatus.

1            46.    A storage medium or a removable storage medium having  
2            information indicating whether transfer of contents is permitted or not, on which  
3            transfer of contents is carried out by the playback/recording apparatus, or the  
4            playback/erasing apparatus as the first apparatus, or the recording apparatus as the  
5            second apparatus, which is defined in any of Claims 1 to 45.

1            47.    A playback/erasing apparatus as a first apparatus in a  
2            playback/recording apparatus having a compression means for compressing data by  
3            reducing a total number T of unused generated values which are smaller than a  
4            generated value G;

5            wherein the generated value G is a value which is generated by arranging  
6            plural data values so as to have digits, among data where the total number of data  
7            values to be used as data values within the contents is less than the total number of  
8            values expressed by a number of bits per data value, i.e., among data having values  
9            not to be used as data values;

10           the unused generated values are values which include the unused data values  
11           and are generated by arranging plural data values so as to have digits;

12           the plural data values are made to have the same number of digits by adding  
13           0 until reaching a number of digits of a maximum data value; and

14           a data area is secured by the data compression of the compression means so  
15           as to perform insertion of additional information such as copyright information and  
16           transfer information, or the like.

1            48.    A recording apparatus as a second apparatus in a playback/recording  
2            apparatus having a decompression means for decompressing compressed data by  
3            calculating the total number T of unused generated values which are smaller than a  
4            generated value G, and adding it to the generated value G;

5           the generated value G is a value which is generated by arranging plural data  
6 values so as to have digits, among data where the total number of data values to be  
7 used as data values within the contents is less than the total number of values  
8 expressed by a number of bits per data value, i.e., among data having values not to  
9 be used as data values;

10           the unused generated values are values which include the unused data values  
11 and are generated by arranging plural data values so as to have digits;

12           the plural data values are made to have the same number of digits by adding  
13 0 until reaching a number of digits of a maximum data value; and

14           the compressed data are decompressed by the decompression means.

1           49.    The playback/recording apparatus defined in Claim 31, wherein:  
2           division of the contents is performed by periodic counting of time which is  
3 possessed by the playback/recording apparatus, when the first storage medium is a  
4 video cassette tape; and

5           it is performed in byte units of the contents stored in the first storage  
6 medium, when the first storage medium is a magnetic disk, an optical disk, a  
7 magneto-optic disk, or the like.

1           50.    The playback/erasing apparatus as the first apparatus defined in  
2 Claim 32, wherein:

3           division of the contents is performed by periodic counting of time which is  
4 possessed by the playback/erasing apparatus, when the first storage medium is a  
5 video cassette tape; and

6           it is performed in byte units of the contents stored in the first storage  
7 medium, when the first storage medium is a magnetic disk, an optical disk, a  
8 magneto-optic disk, or the like.

1           51.    The recording apparatus as the second apparatus defined in Claim 33,  
2 wherein:

- 3            division of the contents is performed by periodic counting of time which is  
4   possessed by the recording apparatus, when the second storage medium is a video  
5   cassette tape; and  
6            it is performed in byte units of the contents stored in the first storage  
7   medium, when the first storage medium is a magnetic disk, an optical disk, a  
8   magneto-optic disk, or the like.